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120 B 011.1

特 許 庁  
實 用 新 案 公 報實用新案出願公告  
昭27-3908公告 昭 27.5.14 出願 昭 24.10.25 (前特許出願日授用)  
實願 昭 25-17480

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(全2頁)

## 中 空 ボ ー ル 外 皮

## 圖 面 の 略 解

第1圖は正面圖第2圖は平面圖第3,4圖は縦斷面圖第5圖は從來品の一部斷面を示す

## 實用新案の性質、作用及效果の要領

本考案はフットボール、バレーボール等の如き縫合せる中空ボールの外皮はの裏面に縁即ち縫合せる部分ろを残しと同程度の厚さの扁平片いはの裏面に附着したるものなり

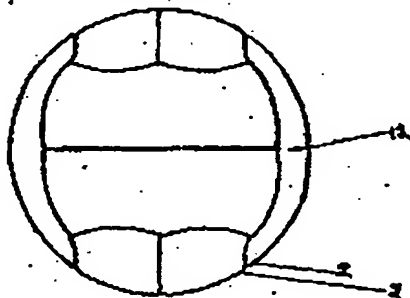
之を適宜の枚數にて縫合せ内部に裏返したるとき扁平片いの周圍の切口1を以て縫合せる縁ろを相互に挟み合ふが故に凸凹なくチューブ3に空氣を充填するとき從來のと異り平均に膨脹するが

故に縫合せる部分ろ丈を強烈に外部に壓迫することなきため全表面に比して外側部2丈多く磨滅をする事なく外皮表面は均等に磨滅をするため長期の使用を可能ならしむるものなり尚内部裏面は平坦なるためチューブの破損の要をも減少せしむ

## 登 録 請 求 の 範 圍

圖面に示す如く外皮はの裏面に縫合せる部分の縁ろを残し扁平片いを附着し適宜の枚數にて縫合せ之を内部に裏返したるとき縫合せる部分の縁ろを扁平片いの周圍の切口1にて相互に挟み合ふ様にしたる中空ボール外皮の構造

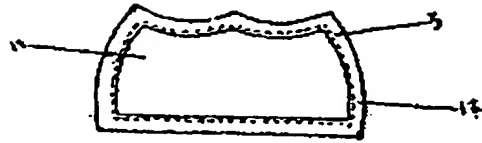
第1圖



(2)

實用新案出願公告  
昭27-3908

第2圖



第3圖



第4圖



第5圖



**Japanese Patent Office**  
**Examined Utility Model Application**

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Hollow Ball Cover

**Brief Explanation of Drawings**

Figure 1 is a frontal view. Figure 2 is a top view. Figures 3 and 4 are views of longitudinal sections. Figure 5 is a partial cross sectional view of a previous product.

**Overview of Materials, Operation, and Effects of this Utility Model**

This utility model pertains to hollow balls that are sewn together, such as footballs, volleyballs, etc. Specifically, this utility model describes a process by which the edge of the rear surface of the cover (c), namely the sewn portion (b) is left as is, and a flat piece (a) is bonded to the rear surface of the cover (c) at the same thickness of the sewn portion (b).

When the proper number of completed portions are turned inward during sewing, the edges (b), which are sewn using the cut ends (1) that run along the circumference of

the flat pieces (a) match so that there is no unevenness over the surface, and when the tube (3) is inflated with air, the ball expands evenly without any extreme pressure placed on the outside along the sewn portions and without any significant wear occurring to any one portion of the outer surface. As a result of the even expansion that occurs to the surface of the cover, it is possible to extend the useful life of the ball as well as reduce the amount of damage that occurs to the tube due to the fact that the inner surface of the cover is also made more even.

#### Scope of Patent Claims

As shown in the drawing, when the edge (h) of the sewn portion on the rear side of the cover (c) is left as is, and a flat piece (a) is attached, the proper number of these completed pieces are turned inward during sewing to form a cover for a hollow ball in which the edges (b) of the sewn portions fit together evenly using the cut ends (1) that run along the circumference of the flat pieces (a).

Figure 1

(2)

Figure 2

Figure 3

Figure 4

Figure 5